MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2022/2023

DSC5014 – CYBERSECURITY

(All sections/Groups)

4 OCTOBER 2023
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 2 pages.
2. Attempt **ALL** questions. The distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

Answer ALL Structured Questions (100 Marks)

QUESTION 1

a. Who are the **THREE (3)** communities of interest and describe their roles in engaging in an organization's efforts to solve InfoSec problems? (6 marks)

b. List any **FIVE (5)** categories of threats to information security and provide **ONE (1)** example for each category. (10 marks)

c. What are the primary objectives of the SecSDLC? (4 marks)

(Total: 20 marks)

QUESTION 2

a. Emely resigned from her position at your organisation. Her final day of work is next Friday. Assume you are the HR manager; what are the security-related duties that you must undertake on Emely? List any **FIVE (5)** tasks. (10 marks)

b. What is InfoSec performance management? (4 marks)

c. Why is security performance measurement needed? (6 marks)

(Total: 20 marks)

QUESTION 3

a. What are the responsibilities of community of interest in risk management? (8 marks)

b. What are the **FIVE (5)** strategies for controlling risk? (10 marks)

c. How to identify the vulnerability on information system? (2 marks)

(Total: 20 marks)

Continued ...

QUESTION 4

a. List **THREE (3)** types of authentication mechanism and give **ONE (1)** example for each type. (6 marks)

b. Intrusion Detection and Prevention System is a cybersecurity technology designed to monitor and protect computer networks. What is the difference between host-based IDPS and network-based IDPS? (4 marks)

c. What are the **TWO (2)** most frequently used encryption algorithms? Briefly explain each of them. (4 marks)

d. Scanners and analysis tools enable security administrators to see what an attacker sees. However, there are weaknesses of using these tools. List any **THREE (3)** of the weaknesses. (6 marks)

(Total: 20 marks)

QUESTION 5

a. Planning for the implementation phase involves the creation of a detailed project plan.
   i. What is the simple planning tool can be used? (3 marks)
   ii. What are the major project tasks and the related attributes that should be included in the project plan? (7 marks)

b. Illustrate the **FOUR (4)** common conversion strategies for performing changeover from the previous method of performing a task to the new method(s)? (10 marks)

(Total: 20 marks)

End of Paper